

**Appl. No.** : **10/660,110**  
**Filed** : **September 11, 2003**

## **REMARKS**

In the Office Action mailed September 7, 2006, the Examiner objects to the specification for informalities. The Examiner also rejects Claims 20-24 and 33-36 under 35 U.S.C. § 102(b) as being anticipated by Morris (Nuclear Magnetic Resonance Imaging in Medicine and Biology, 1986, Oxford: Clarendon Press). The Examiner also rejects Claims 20-30 and 33-42 under 35 U.S.C. § 103(a) as being unpatentable over Morris in view of Churchill (IEEE Transactions on Aerospace and Electronic Systems, Volume AES-17, no. 1, 1981) in view of Pierre (IEEE Transactions on Aerospace and Electronic Systems, 1995, pages 1900-1902) in view of Tacklind (U.S. PGPUB 2003/0101605 A1).

### **Objections to the Specification**

By this paper, Applicant amends paragraph 0005 of the specification to address the objection raised by the Examiner.

### **Rejection Under 35 U.S.C. § 102(b) Based on Morris**

Applicant notes that Morris appear to teach a concept of an NMR system where two phase sensitive detectors measure two signals in quadrature. Such measured signals appear to be combined to provide an improvement in the signal-to-noise ratio. The combination appears to be that of a quadrature combination of the two signals, where neither of the two signals are adjusted.

The amended form of independent Claim 20 recites a combination of features that includes adjusting of one of the first and second output signals based on a relationship between the first and second parameters. Applicant respectfully submits that, among others, Morris does not teach or suggest such a feature where one of the two signals is adjusted based on a relationship between the two signals.

Applicant further notes that the original form of independent Claim 33 recites a combination of features that includes scaling the first output signal to a scale associated with the second configuration. Again, Applicant respectfully submits that Morris does not teach or suggest such scaling of one of the two signals.

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For at least the foregoing reasons, Applicant respectfully submits that independent Claims 20 and 33 are patentable over Morris. Moreover, rejected dependent claims that depend therefrom include additional limitations; and thus are patentable for at least the foregoing reasons.

**Rejection Under 35 U.S.C. § 103(a)**

The Examiner cites a combination of Morris with various references directed to different features of independent Claims 20 and 33. As discussed above, Morris does not teach or suggest a feature, recited in the amended form of Claim 20, where one of the two signals is adjusted based on a relationship between parameters associated with the two signals. Morris also does not teach or suggest a feature, recited in Claim 33, of scaling the first output signal to a scale associated with the second configuration. Moreover, Applicant respectfully submits that none of the cited references, either individually or in any combination, suggest the combinations of features as recited in Claims 20 and 33.

Thus, Applicant respectfully submits that independent Claims 20 and 33 are patentable over any combination of Morris, Churchill, Pierre, and/or Tacklind. Moreover, rejected dependent claims that depend therefrom include additional limitations; and thus are patentable for at least the foregoing reasons.

**CONCLUSION**

Applicant has endeavored to address all of the Examiner's concerns as expressed in the outstanding Office Action. In view of the above remarks, Applicant submits that the application is in condition for allowance and respectfully request the same. If the Examiner finds any remaining impediment to the prompt allowance of these claims that could be clarified with a telephone conference, the Examiner is invited to initiate the same with the undersigned.

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Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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